

REMARKS

Applicant requests reconsideration and allowance of the present application in view of the foregoing amendments and the following remarks.

Claims 1-15, 18-22, and 47 are pending in the present application. Claims 1, 20, and 47 are the independent claims.

Claims 16, 17, and 23-46 have been cancelled without prejudice or disclaimer of the recited subject matter. Claims 1 and 20 have been amended. Claim 47 is newly presented. No new matter has been added.

Claims 1, 15, and 18 stand rejected under 35 U.S.C. § 102 as anticipated by U.S. Patent Publication No. 2002/0101718 (*Negishi et al.*). Claim 14 stands rejected under 35 U.S.C. § 103 as unpatentable over the combination of *Negishi et al.* and U.S. Patent No. 5,260,142 (*Kawabe et al.*). Claims 2-13 and 19-22 stand rejected under 35 U.S.C. § 103 as unpatentable over *Negishi et al.* All rejections are respectfully traversed.

Independent claim 1 now recites, *inter alia*, that a brazing material which is required for brazing tops of inner fins and an inner surface of a tube body portion is not clad to a first material constituting the tube body portion but clad to a second material constituting the inner fins, and ... that both ends of a first material in its breadth direction are engaged and brazed with an end of the second material in its breadth direction sandwiched at one end of the tube in its breadth direction so as not to separate from each other.

Independent claim 20 now recites, *inter alia*, that a brazing material which is required for brazing tops of inner fins and an inner surface of a tube body portion is not clad to a first material constituting the tube body portion but clad to a second material constituting the inner fins, and ... that the brazing material clad to the second material has a melting point lower than that of the brazing material which melts from the other constituting members and penetrates into flow passages.

It is to be appreciated that independent claim 1 has been amended to recite the features of canceled claims 16 and 17. Also, independent claim 20 has been amended to transform it into independent form.

Applicant respectfully submit that *Negishi et al.* neither teaches nor suggests at least the aforementioned features, for at least the following reasons. Thus, the rejections of independent claims 1 and 20 are traversed.

*Negishi et al.* relates to a liquid-cooled heat sink and manufacturing method thereof. The *Negishi et al.* heat sink 11 includes a casing 12 through which through holes 12a, divided by dividing walls 13, 14, and 15, extend. In each of the through holes are corrugated fins 17. (*Negishi et al.*, paragraphs [0025] and [0026]; FIGS. 1-3).

The Office Action contends that the corrugated fins 17 and casing 12 of *Negishi et al.* are inner fins and a tube body portion, respectively. (*Office Action*, pages 2 and 3). Thus, logic dictates that the Office Action must contend that the alleged first material of *Negishi et al.* constitutes the casing 12 (the alleged tube body portion) and that the alleged second material of *Negishi et al.* constitutes the corrugated fins 17 (the alleged inner fins).

Regarding independent claim 1, the Office Action also contends that both ends of the alleged first material (the material constituting the *Negishi et al.* casing 12) are:

engaged;

brazed;

brazed with an end of the alleged second material (the material constituting the *Negishi et al.* fins 17); and

brazed so as not to separate from each other. These contentions are respectfully traversed.

Initially, Applicant notes that the Office Action omits any specific identification of what constitutes the ends of the first material, where they are engaged, or where they are brazed.

First, a review of FIGS. 1-3 of *Negishi et al.* reveals that the casing 12 (the alleged the alleged tube body portion) is monolithic. That is, it is unitary in construction. Thus, the ends of the casing 12 cannot reasonably be said to be engaged. This means, by logical extension, that the ends of the alleged first material that constitutes the alleged tube body portion are not engaged.

Second, because the *Negishi et al.* casing 12 is monolithic, any arguable ends of the casing are not brazed. This means, by logical extension, that the ends of the alleged first material are not brazed.

Third, because the ends of the *Negishi et al.* casing 12 are not brazed, they are not brazed with an end of any alleged second material (the material constituting fins 17).

Finally, because the *Negishi et al.* casing 12 is monolithic, any arguable ends of the casing cannot reasonably be said to be brazed "so as not to separate from each other." Thus,

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because the alleged first material constitutes the alleged tube body portion (casing 12), any ends of the alleged first material also cannot reasonably be said to be brazed "so as not to separate from each other." This makes sense since the alleged tube body portion (casing 12) is monolithic (i.e., unitary) in construction.

For any one of these reasons, *Negishi et al.* does not teach the aforementioned features of independent claim 1.

Accordingly, favorable reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. § 102 are respectfully requested.

In the event that the Office maintains this rejection, Applicant respectfully requests, in accordance with the principles of compact prosecution, that the Office articulate, one the record and with specificity sufficient to support a *prima facie* case of anticipation, the portion(s) of *Negishi et al.* that constitute alleged ends of the alleged first material that are engaged, brazed, and brazed so as not to separate as now recited by independent claim 1.

Regarding independent claim 20, the Office Action contends that *Negishi et al.* suggests the aforementioned features of this claim. (*Office Action*, page 4). This contention is respectfully traversed.

Initially, it is noted that the Office Action fails to specifically address the presence of the aforementioned features of claim 20. Indeed, the Office Action merely advises that *Negishi et al.* teaches all of the features of rejected claims 2-13 and 19-22 and that the "specifying the thicknesses of the layers and the sizes of the parts" of various other dependent claims is obvious. (*Office Action*, page 4). Thus, the Office

failed to articulate a *prima facie* case.

Nonetheless, Applicant submits that *Negishi et al.* is silent as to relative melting points of brazing materials. For example, even the portion of *Negishi et al.* repeatedly relied upon by the Office (paragraph [0021]) is silent as to the claimed different melting points of different brazing materials. This absence is not surprising, however, since [0021] of that patent discusses using a single brazing material.

Accordingly, favorable reconsideration and withdrawal of the rejection of claim 20 under 35 U.S.C. § 103 are respectfully requested.

In the event that the Office maintains this rejection, Applicant respectfully requests, in accordance with the principles of compact prosecution, that the Office articulate, one the record and with specificity sufficient to support a *prima facie* case of unpatentability, the factual basis on which it is alleged that *Negishi et al.* even suggests the aforementioned features of independent claim 20.

Regarding the rejection of claim 14 under 35 U.S.C. § 103, it is submitted that the secondary citation to *Kawabe et al.*, applied only against claim 14, does not remedy the aforementioned deficiencies of *Negishi et al.*

Applicant respectfully submits that new independent claim 47 patentably defines over the citations of record for at least reasons similar to those set forth above regarding independent claim 1.

In view of the foregoing, Applicant respectfully submits that the independent claims patentably define the present invention over the citations of record. Further, the dependent claims should also be allowable for the same reasons

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as their respective base claims and further due to the additional features that they recite. Separate and individual consideration of the dependent claims is respectfully requested.

Applicant believes that the present Amendment is responsive to each of the points raised by the Examiner in the Official Action. However, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to such matters.

There being no further outstanding objections or rejections, it is submitted that the present application is in condition for allowance. An early action to that effect is courteously solicited.

Respectfully submitted,



Kazunao Kubotera

Reg. No. 51,194

KUBOTERA & ASSOCIATES, LLP  
200 Daingerfield Rd.  
Suite 202  
Alexandria, VA 22314  
Tel. (703) 684-9777